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(54) THIN ORGANIC FILM TRANSISTOR

(57) Abstract:

PURPOSE: To provide an organic transistor having a film quality which has easy manufacture, and excellent surface properties and smoothness and excellent electric characteristics.

CONSTITUTION: A thin organic film transistor which uses a doped condensed polycyclic aromatic compound thin film having 4-13 condensed benzene rings, is provided. The transistor utilizes semiconductor characteristics of a condensed polycyclic aromatic compound doped with

acceptor or donor molecule. The transistor is easily manufactured and provided with excellent electric characteristics different from a semiconductor element of normally inorganic/ organic materials. Since the temperature of a substrate can be kept equal to the ambient temperature during the manufacture of the transistor, the transistor can be formed on various types of substrates. Further, since the film quality has excellent surface properties and smoothness, it is industrially useful.

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